

Notice of Allowability

Application No.

09/802,616

Examiner

Fred Ferris

Applicant(s)

HOSKOTE ET AL.

Art Unit

2128

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 27 April 2006.
2. ☒ The allowed claim(s) is/are 1-21.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08), Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413), Paper No./Mail Date _____
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

Fred Ferris
FRED FERRIS
Primary Examiner
R2200

DETAILED ACTION

1. *Prosecution on the merits of this application is now reopened in view of new arguments presented in applicant's appeal brief of 27 April 2006. The previous finality of 25 May 2005 is hereby withdrawn. Claims 1-21 remain pending in this application and have now been allowed over the prior art of record.*

Response to Arguments

2. *Applicant's arguments filed 27 April 2006 have been fully considered and found to be persuasive.*

Examiners synopsis: Applicant's previous arguments and after final amendment (8/12/05, 1/10/05) had simply argued that the claimed inversion detection phase could be summarized as defined by page 5, lines 1-3 of the specification. The examiner had therefore maintained the rejection in view of this limited definition that appeared to indicate that the detection phase simply operated by detecting latch outputs of "opposite" values.

Applicant's appeal brief submitted 27 April 2006 has presented new arguments that have clarified the claimed subject matter over the prior art of record. In this instance, applicants have now specifically argued how the claimed inversion detection phase is distinguished over the cited prior art. In particular, that the inversion detection phase is iterative and provides feedback via updates to the random simulation vectors as disclosed on page 5, lines 5-16 of the specification and includes direct mapped and inverse mapped inputs as

disclosed one page 9, line 28 to page 10 line 2 of the specification. Also, the mapping process has now further been clarified as described on page 3, line 29 to page line 3 of the specification and the structural phase has been clarified to include mappings not identified after a certain number of iterations (referred to as a fixed points), as defined in the specification a page 4, line 5 to 35. Accordingly, the case is now in condition for allowance.

Allowable Subject Matter

3. *Claims 1-21 are allowed over the prior art of record.*

The following is an examiner's statement of reasons for allowance:

Applicants are disclosing a method, system, and computer code for mapping state elements between a first and second circuit, comparing the state element features, and determining the mappings between state elements in first and second circuit for equivalence. This has been disclosed in the prior art of record.

While certain elements of the claimed invention are individually disclosed in the prior art, the prior art of record does not disclose the specific combination of system elements, or method steps, including a inversion detection phase that is iterative and provides feedback via updates to the random simulation vectors, as disclosed on page 5, lines 5-16 of the specification, and includes direct mapped and inverse mapped inputs as disclosed one page 9, line 28 to page 10 line 2 of the specification, or the related mapping process as described on page 3, line 29 to page line 3 of the specification and the structural phase to including

mappings not identified after a certain number of iterations (referred to as a fixed points), as defined in the specification a page 4, line 5 to 35, as required by the limitations of independent claims 1, 18, and 20.

The closest prior art uncovered during examination teaches certain limitations of the claimed invention as follows:

U.S. Patent 6,247,163 issued to Burch: teaches mapping state elements between a first and second circuit, comparing the state element features, and determining the mappings between state elements in first and second circuit for equivalence. However, Burch does not does not disclose the specific combination of system elements, or method steps, including a inversion detection phase that is iterative and provides feedback via updates to the random simulation vectors, as disclosed on page 5, lines 5-16 of the specification, and includes direct mapped and inverse mapped inputs as disclosed one page 9, line 28 to page 10 line 2 of the specification, or the related mapping process as described on page 3, line 29 to page line 3 of the specification and the structural phase to including mappings not identified after a certain number of iterations (referred to as a fixed points), as defined in the specification a page 4, line 5 to 35, as required by the limitations of independent claims 1, 18, and 20.


The features noted above render independent claims 1, 18, and 20 non-obvious over the prior art of record. Dependent claims have been deemed allowable as depending either directly or indirectly from independent claims 1, 18, and 20.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

4. *Any inquiry concerning this communication or earlier communications from the examiner should be directed to Fred Ferris whose telephone number is 571-272-3778 and whose normal working hours are 8:30am to 5:00pm Monday to Friday. Any inquiry of a general nature relating to the status of this application should be directed to the group receptionist whose telephone number is 571-272-3700. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kamini Shah can be reached at 571-272-3780. The Official Fax Number is: (571) 273-8300*

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July 18, 2006*


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TC 2100